

Appendix C

Carbon Dioxide Emission Factors for Coal

Table C1 presents U.S. average carbon dioxide emission factors for coal by sector. The factors measure the emissions produced during the combustion of coal and were derived from coal sample analyses. The factors are ratios of the carbon dioxide emitted to the heat content of the coal burned,

assuming complete combustion. Factors vary according to the rank and geographic origin of the coal. Sectoral factors reflect the rank and origin of the coal consumed annually in the sector.

Table C1. Average Carbon Dioxide Emission Factors for Coal by Sector, 1980-2000
(Pounds of Carbon Dioxide per Million Btu)

Year	Residential and Commercial	Industrial		Electricity Generation	U.S. Average ^b
		Coke Plants ^a	Other Coal		
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	212.0	206.6	208.7	209.7	209.6
1991	212.6	206.6	209.3	209.9	209.9
1992	213.5	206.5	209.1	210.1	209.9
1993	211.7	206.4	208.3	209.1	209.0
1994	211.1	206.7	208.4	209.2	209.1
1995	211.4	206.7	208.6	209.5	209.4
1996	210.7	206.6	208.2	209.5	209.3
1997	209.6	206.9	208.2	209.4	209.3
1998	210.9	207.1	208.5	209.6	209.5
1999	210.3	206.9	208.6	209.9	209.7
2000	210.5	207.2	208.1	210.0	209.8

^aNo allowances have been made for carbon retained in non-energy coal chemical byproducts from the carbonization process.

^bWeighted average. The weights used are consumption values by sector.

Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.